

Palloptera scutellata (Diptera: Pallopteridae) new for the fauna of Belgium

John T. Smit, Jan Willem A. van Zuijlen & Bart Hanssens

Samenvatting. *Palloptera scutellata* (Diptera: Pallopteridae) nieuw voor de Belgische fauna.

Een exemplaar van *Palloptera scutellata* (Macquart, 1835) werd gedetermineerd aan de hand van een foto. Deze soort werd nog niet eerder gemeld uit België. Het totaal aantal uit België bekende soorten Pallopteridae komt hiermee op acht.

Résumé. *Palloptera scutellata* (Diptera: Pallopteridae) nouvelle espèce pour la faune belge. Un exemplaire de *Palloptera scutellata* (Macquart, 1835) a été déterminé à l'aide d'une photo. Cette espèce n'a jamais été mentionnée de Belgique. Le nombre d'espèces de Pallopteridae connues de Belgique monte ainsi à huit.

Key words: *Palloptera scutellata* – faunistics – Belgium – First record.

Smit, J. T.: European Invertebrate Survey – the Netherlands, PO Box 9517, 2300 RA, Leiden, the Netherlands. smitj@naturalis.nl

van Zuijlen, J. W. A.: Mendelssohnstraat 62, 5144 GH Waalwijk, the Netherlands. jewe.vz@lycos.nl

Hanssens, B.: Natuurpunt Brussel en Milieu Commissie Brussel en Omgeving vzw (www.cebe.be), Stroobantsstraat 35, 1140 Brussel, Belgium. bhanssens@skynet.be

As in many other countries, the family Pallopteridae has received little attention in Belgium. It is a family of medium-sized (2.5–7.0 mm), greyish, reddish to brownish yellow or pale yellow, rather sparsely bristled, acalyptrate flies. This family can be distinguished by the following combination of characters: head with one pair of reclinate orbital setae; vibrissae absent. Wings maculated in most species, costa with subcostal break. Legs without dorsal preapical setae on tibiae. Females with an elongate, piercer-type ovipositor, varying from narrow to broad. Larvae have been found in stems of Apiaceae, Poaceae, Juncaceae, in flower heads of Asteraceae, or under bark of various trees. The larvae living under bark are thought to be feeding on beetles or mycelium. In general little is known about the biology of most species. The family is represented by only a limited number of species in North-western Europe and up till now, only seven species were recorded from Belgium (Gosseries 1991).

On February 10th 2008 a single female specimen of *Palloptera scutellata* (Macquart, 1835) (fig. 1) was photographed in a garden in Brussels by the third author. This is the first record of this species for Belgium. *P. scutellata* can be easily distinguished from all other *Palloptera* species known from Belgium by the dusted blueish-grey thorax, the orange-brown abdomen and the wing pattern (fig. 2). This species has only recently been found in Germany (Stuke & Merz 2005) and the Netherlands (De Jong & Van Aartsen 2007).



Figure 1. Female *Palloptera scutellata* taken at a garden in Brussels. Photo B. Hanssens.



Figure 2. Female *Palloptera scutellata* taken at Doorn, the Netherlands. The typical blueish-grey thorax, orange-brown abdomen and wing pattern are clearly visible. Photo J. T. Smit.

The recent increase of records from the Netherlands in 2007 and 2008 suggests that this species has probably been present for a longer period and has been largely overlooked due to its host plant and its aberrant flight period (Van Eck *et al.* 2008). *P. scutellata* is associated with *Juncus* spp. and is mainly found in stands of *J. effusus*. The species has been recorded in early spring, from March until May/June (also one record from July), and in late autumn, from October until December. It is suggested that the adults emerge in late autumn and hibernate as adults, which would explain the aberrant flight period. The large numbers observed in March in the Netherlands seem to confirm this hypothesis. Another curious aspect of this species is the fact that nearly all records are of females (Van Eck *et al.* 2008, De Jong & Van Aartsen 2007, Stubbs 1969, Stuke & Merz 2005). This leads De Jong & Van Aartsen (2007) to suspect that this species probably reproduces parthenogenetically. Whether this is true or not remains unknown up till now and can only be refuted by finding males.

References

- Gosseries J. 1991. Pallopteridae. — In: Grootaert P., De Bruyn L. & M. De Meyer (eds.), *Catalogue of the Diptera of Belgium*. — Studiedocumenten van het Koninklijk Belgisch Instituut voor Natuurwetenschappen 70: 140.
- De Jong H. & B. van Aartsen 2007. *Palloptera scutellata* (Diptera: Pallopteridae) in The Netherlands. — *Entomologische Berichten*, Amsterdam **67**: 105–107.
- Stubbs A. E. 1969. Observations on *Palloptera scutellata* (Mcq) in Berkshire and Surrey and discussion on the larval habitats of British Pallopteridae (Diptera). — *Entomologist's Monthly Magazine* **104**: 157–160.
- Stuke J.-H. & B. Merz 2005. Drei für Deutschland neu nachgewiesenen acalyptrate Fliegen (Diptera: Lauxaniidae, Pallopteridae, Ulidiidae). — *Studia dipterologica* **12**: 242–254.
- Van Eck A., Zuijlen, J. W. A. van & J. T. Smit 2008. *Palloptera scutellata* (Macquart, 1835) (Diptera, Pallopteridae) een recente aanwinst of lange tijd over het hoofd gezien. — *Vliegenmepper* **17**(1): 7–10.
-